

**IN THE UNITED STATES BANKRUPTCY COURT  
FOR THE EASTERN DISTRICT OF NORTH CAROLINA  
RALEIGH DIVISION**

IN RE:

CHAPTER 11

**Wireless Systems Solutions LLC,**

**CASE NO. 22-00513-5-JNC**

Debtor.

**DECLARATION OF LASLO GROSS**

LASLO GROSS hereby declares under penalty of perjury, that the foregoing is true and correct, pursuant to 28 U.S.C § 1746 as follows:

1. I am over the age of eighteen and employed by Defendant Wireless Systems Solutions, LLC, (“WSS”) as a Director, Business Development.
2. WSS is a technology company engaged in the business of designing, developing, and selling network equipment and infrastructure products for wireless communication networks. While WSS was formed in 2015, predecessor companies to WSS operated by Susan Gross and I were among the early adopters of software defined radio (SDR) for wireless communication products. WSS (and its predecessor companies) have developed hardware platforms and software for Analog Signal cellular telephone services (AMPs), 2G, 2.5G and 3G, 4G, and are developing products for 5G networks.
3. WSS develops products that are compliant with the 3<sup>rd</sup> Generation Partnership Project (3GPP), an open standards body.
4. 3GPP is a consortium comprised of seven organizational partners whose goals, among others, are the development of protocols for mobile telecommunications. Protocols represent defined standards by which wireless devices interact with each other.

3GPP standards are structured as Releases, the first being in 1992 and the most recent Release 17 was released in First Quarter 2022. Release 18 is slated to be released in Fourth Quarter 2023.

5. All 3GPP standards are public and can be implemented by anyone. However, in order for products to interoperate on networks with each other, they must be 3GPP compliant. As example, an AT&T cellular phone will not be able to communicate with a Sprint cellular phone unless both units are 3GPP compliant.

6. While WSS was engaged by SmartSky to work on a wireless system, REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

7. All references in this Declaration to a particular SmartSky system are based on the system that WSS developed during its engagement with SmartSky. WSS does not have knowledge of any present systems which SmartSky is developing or has purchased. It is self-evident that WSS would not be able to rely on any IP or Developed IP for systems developed or purchased by SmartSky since its disengagement in summer 2020.

8. REDACTED

REDACTED

REDACTED

REDACTED

9. REDACTED

REDACTED  
REDACTED

REDACTED Another example of products that operate on the 2.4GHz

frequency band are products with WiFi access (ie. Tablets, IPADs, PCs, TVs, etc.).

Therefore, there is nothing unique about this band that makes it proprietary to SmartSky.

10. WSS is developing 5G products for private network operators, the fixed wireless network market, defense and public safety. These products are 3GPP compliant and are based on Releases 15, 16 and 17 of the 3GPP standard, which do not interoperate with previous releases (Releases 13 and below).

11. This development is consistent with the underlying philosophy of 5G which is focused on the design of products with maximum flexibility for a wide variety of applications.

12. WSS is not and has never been a network operator. WSS has no plans to build or operate a 5G air-to-ground (ATG) network, or any other cellular network. Building a network requires a large capital investment, and WSS does not have the kind of funds necessary to build and operate a nationwide network as alleged by SmartSky.

13. Products currently under development by WSS target private network operators, the fixed wireless network market, defense and public safety. Consistent with the underlying philosophy of 5G, WSS products are designed for maximum flexibility for a wide variety of applications. The WSS product line includes 4 basic modular

components that can be combined in different ways to provide complete solutions for a wide variety of applications. The four basic components comprise:

- a. a 5G radio unit (RU) that can be used in a base station (gNB) or user equipment (UE);
- b. a 5G base station (gNB) combining the WSS 5G RU with a centralized unit (CU) and distributed unit (DU) for baseband processing;
- c. a virtual 5G core providing connection to external networks; and
- d. a 5G element management system (EMS) for network management

14. The four basic components offered by WSS can be combined to provide complete private networks for a wide variety of use cases. Some examples of the use cases being targeted by WSS include:

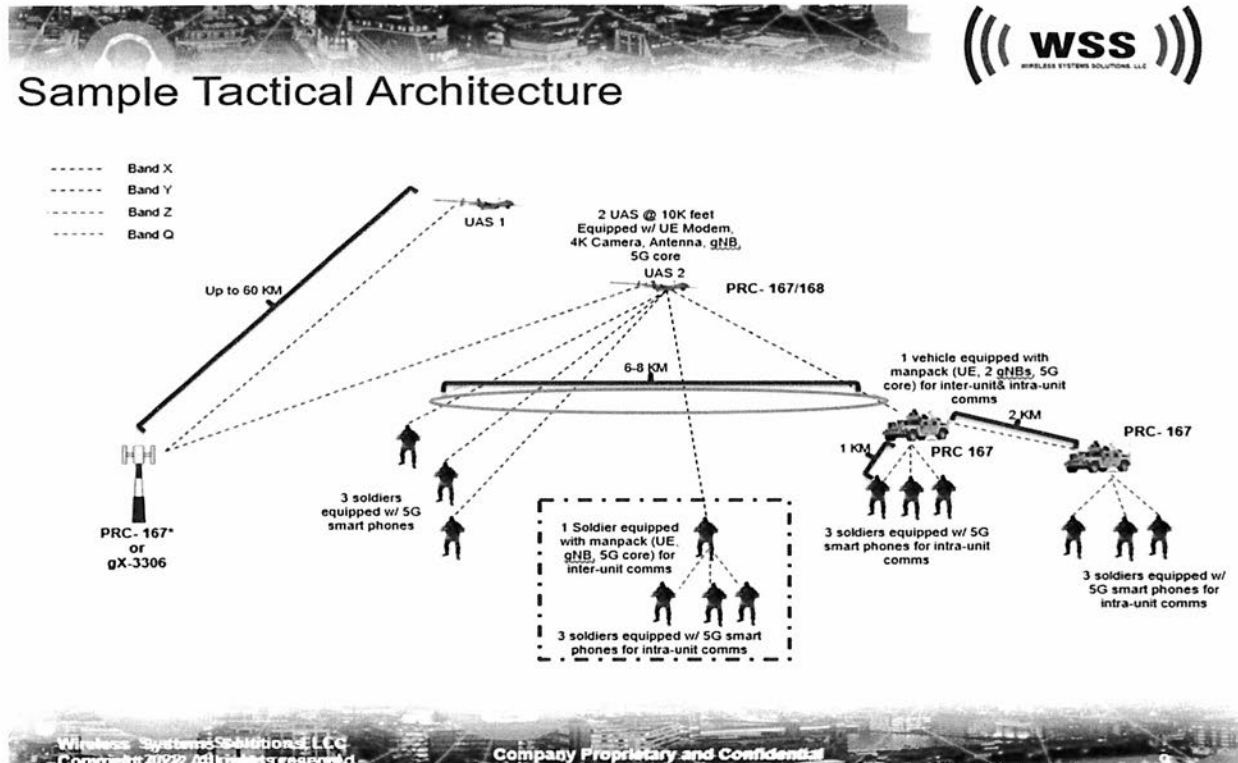
- a. Small cell use case – the 5G base station, 5G core and 5G EMS can be combined to provide a complete free-standing network in an area not otherwise served. An example of the small cell use case is a single cell on a farm in a rural area to provide connectivity to farmers.
- b. Network on the Edge (NOTE)- multiple 5G base stations, 5G core and 5G EMS can be combined to provide a complete free-standing network to serve a small town or corporate campus and/or areas that have little to no connectivity to the Internet.



- c. Tactical platforms – complete 5G network called System In A Box (SIAB) enables rapid deployment of free-standing networks in combat zones or geographic areas impacted by natural disasters.

15. Figure 1 below illustrates an exemplary deployment of the WSS tactical platform for military use in combat zones. A free-standing network (SIAB) is deployed at a command post that is beyond the line of sight (LOS) of military units in the combat zone. Connectivity between the command post and military units beyond the LOS is provided by SIABs mounted on aerial platforms (e.g., drones), ground vehicles, or in backpacks carried by soldiers. The tactical system enables seamless communication between soldiers in the same unit or different units. The tactical system can also be used in a rural setting to bring broadband to rural areas lacking connectivity.

FIGURE 1



16. The systems being developed by WSS are all next generation iterations of products previously offered by WSS prior to its relationship with SmartSky. Similar products based on the 4G/LTE standard were offered by WSS prior to its business dealings with SmartSky. The products being developed are based on the 5G standard.

17. The 5G standard represents a complete overhaul of network architecture and protocols for mobile networks. Both the 5G core network and 5G radio interface, called new Radio (NR), have been designed from the ground up to meet the requirements of Mobile Broadband (MBB), Mobile Type Communications (MTC), and Ultra Reliable Low Latency Communication (URLLC) without regard to backward compatibility with

4G. 5G is an entirely new and different mobile communication technology compared to 4G.

18. It is my understanding that SmartSky has not produced 5G products and if SmartSky is currently offering a 5G product, WSS was not involved in developing any 5G products for SmartSky.

19. REDACTED

REDACTED

REDACTED

REDACTED whereas WSS' 5G produces use Time Division Multiple Access (TDD). FDD requires two separate wireless communications channels (frequency bands) on separate frequencies, one for transmit and the other for received data whereas TDD uses a single frequency band for both transmit and receive.

20. Any development undertaken by WSS during their engagement with SmartSky would have no value to WSS

REDACTED

REDACTED

REDACTED

21. The 5G products and systems being developed by WSS are capable for use for air-to-ground (ATG) communications as broadly defined by 3GPP but are not being designed specifically for the aviation market currently occupied by SmartSky and GoGo. The tactical system in Figure 1 illustrates an important use case for ATG communications, i.e., communication with base stations or relays mounted on unmanned aerial vehicles (UAVs).

22. 3GPP has long recognized the need to support communications with UAVs and other aerial networks/platforms for both communication services and other services. UAVS can be leveraged as cost-effective aerial platforms to provide ground users with enhanced communication services in otherwise unserved areas. The tactical system in Figure 1 is one example of a communication network where UAVs host mobile cells to enable communication between a command post and units on the ground. Another important use case is for delivery of broadband services to rural areas. Standardization work on UAVs is ongoing and is an important emerging market for WSS products. Table 1 below is a non-exhaustive list of some of the standardization work by 3GPP related to UAVs, which is continuing.

3GPP Standard	Study/Work item
Release 17, TS.22.125 v.17.6.0	Unmanned Aerial System (UAS) support in 3GPP
Release 17, TS.22.255 v.17.3.0	Application layer support for Uncrewed Aerial System (UAS); Functional architecture and information flows;
Release 16, TR 22.825, v. 16.0.0	Study on Remote Identification of Unmanned Aerial Systems (UAS)
Release 17, TR.22.829 v.17.1.0	Enhancement for Unmanned Aerial Vehicles (UAVs)
Release 17, TS 23.255 v17.3.0	Application layer support for Uncrewed Aerial System (UAS); Functional architecture and information flows;
Release 18, TR 23.700-55 v0.3.0	Study on enhanced Application Architecture for UAS applications
Release 18, TR 23.700-58 v0.1.0	Study of further architecture enhancements for uncrewed aerial systems and urban air mobility
Release 17, TR.23.754 v.17.1.0	Study on supporting Unmanned Aerial Systems (UAS) connectivity, Identification and tracking
Release 17, TR 23.755	Study on Application Layer Support for Unmanned Aerial System (UAS)
Release 17, TS 24.257 v.17.0.0	Uncrewed Aerial System (UAS) Application Enabler (UAE) layer; Protocol aspects; Stage 3



Release 17, TS 29.255, v17.0.0	Uncrewed Aerial System Service Supplier (USS) Services; Stage 3
Release 17, TS 29.256, v17.0.0	Uncrewed Aerial Systems Network Function (UAS-NF); Aerial Management Services; Stage 3
Release 17, TS 29.257, v17.0.0	Application layer support for Uncrewed Aerial System (UAS); UAS Application Enabler (UAE) Server Services; Stage 3
Release 17, TS 33.256, v17.0.0	Security aspects of Uncrewed Aerial Systems (UAS)
Release 17, TR 33.854, v17.1.0	Study on security aspects of Uncrewed Aerial Systems (UAS)
Release 15, TS 36.777	Enhanced LTE Support for Aerial Vehicles

23. The systems being designed by WSS are based on 3GPP standards for 5G and which includes but is not limited to the field of UAVs. There is already extensive experience and standards support for communications with UAVs. The 3GPP standards are open standards and available for anyone to use. The 3GPP standards have already identified and addressed most of the critical issues related to UAV communication. There is a large body of work related to UAV communications including the 3GPP standards, technical literature, and patents owned by third parties. SmartSky has cited no evidence that WSS is using SmartSky IP in its products.

24. On February 28, 2022, I spoke to Stephen Newell of NXTCOMM. I asked him if his company could supply WSS with an off the shelf antenna that would function with a 5G wireless communication system with ATG capability in the 2.4Ghz and 5.8Ghz unlicensed bands. I was looking for a component to use in a system described in paragraphs 12-13 above and Figure 1. I mentioned GoGo because it uses antennas that operate in the 2.4Ghz band with 5G capability as an example of what I was looking for. Mr. Newell said NXTCOMM did not have any antennas that would meet the

specifications I provided. During my conversation with Mr. Newell, I do not recall saying WSS was creating a system that was going to compete with GoGo. WSS is a supplier of systems or products that can be used by a customer to create their own private network. We are not developing a network nor are we seeking to become a network operator to compete with GoGo as that would require massive amounts of capital. WSS simply sells products to others.

25. In order to compete effectively in the 5G market, it is imperative that the 5G products offered by WSS support Non Terrestrial Networks (NTNs) and aerial platforms. It is my understanding that the injunction entered by the Court does not prohibit WSS from making products for ATG communications. SmartSky's false and unsupported allegations that WSS is using SmartSky IP is simply an attempt to cripple WSS and to prevent WSS from operating as a viable company.

Dated: April 25, 2022

  
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Laslo Gross